Understanding Decision-Climate Interactions on Decadal Scales

Decadal Prediction
Climate Change Projection

Time
Climate Impact Variable

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Potential Value of decadal prediction

Decadal Prediction
Climate Change Projection

Climate Impact Variable

Time

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Decadal Prediction

Weather Forecasts
Seasonal Outlooks
Decadal Predictions
Climate Change Projections

Skill from Initial State
Skill from Climate Forcing

Adapted from Meehl et al (2009)
What is Skillful?

Global prediction
Regional/local prediction
Climate-related impact prediction

Intersection of predictive capacity with stakeholder needs
Communication of decision-relevant predictive information and uncertainties

Climate-related decision space
Regional/local decision maker
Application sector

What is Needed?
Temperature is Skillful

Better than a guess
Worse than a guess

Years 1-5

Years 5-9

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Precipitation is not skillful . . . yet

Years 1-5

Years 5-9

Better than a guess

Worse than a guess

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Why are we here?

To understand the key characteristics of useful decadal climate information for water management decisions.

How?

Get your reactions to a few images of the decadal climate predictions.
Mean Annual Daily Maximum Temperature

Sacramento
Observed and Predicted Daily Max Temperature

Russian River